

MEMORANDUM FOR FILE

SUBJECT: John H. Kerr 216 Feasibility Study Executive Committee and Work Group  
Team Leader's Meeting 24 March 2004

1. The subject meeting was held on 24 March 2004, at the Jane S. McKimmon Center and Training Center in Raleigh, North Carolina. The meeting agenda is Attachment 1. The list of attendees is Attachment 2. The Wilmington District Funding Report is Attachment 3.
2. The meeting was opened by the members of the Executive Committee (EC), Colonel Alexander, USACE; John Morris, NC Division of Water Resources; and Dave Paylor, VA Department of Environmental Quality. Mr. Morris suggested further development of the nine subtasks and costs, identifying the task implementers, capturing work in-kind involving two states and multiple agencies. Mr. Morris emphasized the need for USACE to identify a specific implementation plan and to improve communication potential amongst supporting agencies. Mr. Morris also stated that subject water quality gauges placed during relicensing would be ready for funding after 1 July 2004. Mr. Morris, Mr. Paylor, and Colonel Alexander expressed great appreciation for work completed thus far.
3. The nine Study Teams reported on progress and issues as stated in the following.
  - a. Team 1: Downstream Flow Regime and Effects on Riparian Ecosystem. Jim Mead, NC Division of Water Resources, reported that US Fish and Wildlife Services Communications via email have been removed due to Disbursement of Royalties Computer Access Dispute by court order for the third time and that USFWS may communicate via phone and fax only. Mr. Mead expressed divided efforts into the floral community sub-team and faunal community sub-team to identify separate scopes of work. Eighteen individuals have been assigned to the faunal community sub-team, and attempts are being made to assign individuals to the floral community sub-team whom are unaffiliated with State or Federal agencies. Three key study tasks of John H. Kerr's operation have been identified by Team 1 for Phase I and include:
    - Task 1—Use existing tree core growth data and historic flood patterns.
    - Task 2—Use seedling survival correlating with downstream flood regime, various hardwood species, inundation period and species for selection.
    - Task 3—For the floral Community, use existing 1995 data, obtain new data, and compare to reference reach to determine difference in vegetative community when comparing hydrologic regime of one area versus another.

The faunal community information is being compiled slowly because of limited availability of knowledge, which is making scoping for Phase II difficult. Phase I will generally consist of short term background research; Phase II will consist of evaluating Phase I and determining how downstream communities are affected by dam operations. Phase I costs may decrease if work is shifted to Phase II. A sizeable gap in existing data regarding effects of dam operations and future effects of operation exists. Ben Wood requested a definition of costs for Phase I per each of the three identified study tasks out of the requested \$114,000. Mr. Mead stated that Phase I will involve existing data review, modeling, the three study tasks, and scoping for Phase II. The largest cost is for modeling. Evaluation of Existing Species Community Response models are estimated to cost \$50,000; Reservoir Operation and Flood models are estimated to cost \$20,000. Costs for these models may be revised once costs for Faunal Response models are further developed. Some response modeling work may be shifted into Phase II. Subject matter specialists are contributing valuable information and data for models without requesting reimbursement. USACE requested costs for riparian task efforts within six weeks.

SUBJECT: John H. Kerr 216 Feasibility Study Executive Committee and Work Group Team Leader's Meeting 24 March 2004

Next, Lisa Hetherman discussed the following funding issues. Funding reports have been provided and work and in-kind costs from North Carolina have been accounted. The sponsors, North Carolina and Virginia have submitted requests for funding. The Wilmington District has suggested an accounting format for recording labor funds as they are spent. Funds have been spent ahead of the Phase I schedule (\$165,000 spent by end of March); therefore, the schedule will be revised affect next month's Team Leader Meeting. A total amount of \$323,000 is estimated to be spent for Fiscal Year 2004. No more Federal Funds are available for contribution; dollars spent by September's end is all the comprises all available money. Phase I of the Study shall be complete by January, allowing acceptance of \$114,000 Federal Dollars. For Fiscal Year 2005, an estimated \$200,000 is budgeted and to be matched by the sponsors' share for a total of \$580,000. Virginia has provided \$81,500 in funds. Many unknown costs are expected in the Study. Mrs. Hetherman stated the need for \$6,000 and that work in-kind will be accounted for in cost sharing prior to 15 January 05 or before Phase I work is scheduled for completion. Current costs for scopes of work need evaluating.

Colonel Alexander reiterated the funding schedule; of an estimated \$322,000, half will be Federal Dollars spent for Fiscal Year 2004. Colonel Alexander questioned whether or not schedule slippages are acceptable and if Teams need to scale back on work. He stated that no more funds are available. Mr. Paylor stated that tasks to be completed may have to be carefully chosen depending upon what is affordable and questioned the possibility and appropriateness of assigning available dollars for each of the nine tasks.

Ms. Hetherman provided further clarification of funding and provided the Funding Report (Attachment 3). The Federal funds cannot exceed 50% of the cost share; Nonfederal share or work in-kind may exceed 50%, but cash amount cannot exceed 50% costs.

b. Team 2: Water Quality. Frank Yelverton, USACE, and Jennifer Everett, NC Division of Water Quality, reported that since the last team meeting, two meetings (one via conference call and one face-to-face meeting) have occurred. Revisions regarding impacts to flood plain, water quality in the river, and water quality in the reservoir system have been made. Costs have increased. Costs from State and Federal agencies have been developed. A bibliography has also been developed. Modeling is the next issue to be explored. Plans for developing simplistic versus a complex scope due to the constrained budget are in progress. A complex model is desired but must be tailored to the budget. A modeling Oversight Team (preferably people from the existing team to avoid duplication of efforts and save time and costs) is necessary. It is strongly recommended to maintain gauges, especially due to the predicted dry year ahead. Prioritization of gauges by location, costs, and for model development efforts is recommended. Modeling in-house, downstream issues, flood capacity, and DO issues are currently being focused on. Mr. Morris recommended that pertinent resource issues and essential needs be focused on and that shoreline management versus flow issues be studied.

c. Team 3: Sedimentation and Channel Morphology. Hassan Pourtaheri, USACE, summarized sedimentation and channel morphology work. In February, high flow caused banks to erode; outside of banks eroded while inside banks remained fairly stable. Further investigation on how much high flow affects processes is necessary. A conference call occurred on 10 March 04 regarding development of the scope of work (SOW). The next tasks the team will pursue is monitoring sedimentation of the floodplain on a large time scale, gather existing sedimentation data, collect sediment samples to input into a model, set up a model to investigate the operation of John H. Kerr's influence on sedimentation, begin scoping for Phase II, prioritize operation issues, and explore optional alternative operation plans. Plans for Phase II are to review Phase I, refine data, and investigate sedimentation source. Jennifer Everett stated that in addition to the USGS floodplain study, an on-ground study is necessary to gather erosion data from points placed by US Fish and Wildlife Services. Water level needs to be down for two days in order to collect data. No formal request has been submitted to draw the

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river down for data collection; future coordination is anticipated. Terry Brown, USACE, stated that drawing down the river can be completed upon request, and forecasts indicated that the water level will naturally be down during the summer. Ms. Everett, indicated that the data needs to be collected by October within Phase II.

d. Team 4: Reservoir Resources. Tom Fransen, NC Division of Water Resources, and Bud LaRoche, VA Department of Game and Inland Fisheries, reported that during the last meeting on 4 March 04, changes to the Study Plan from December were reviewed. Additional changes were made, and it was determined that prioritization of the tasks needed to occur. Each task was reviewed individually and volunteers were assigned to each task. Concern with generalities exists. The first attempt at developing a SOW is scheduled for 1 April 04. Most issues are with water management on the reservoir, property values, shoreline management, and impacts of dam operation. Distinguishing and separating costs between Phase I and Phase II when dealing with proposals remain a constant struggle.

e. Team 5: Downstream Flow Based Recreation. Mead reported that a small group (8) has met three times regarding this task, the scope is getting narrowed, and that the team is close to drafting and submitting a final SOW. Three tasks are being combined under the SOW.

Task 1--GIS based evaluation of access roads, recreational roads, and hunting under different flooding regimes and determining an interrelation of these activities in the riparian zone.

Task 2--Identify Four Key Uses: Hunting, boating/fishing/Canoeing, Camping platforms, and Ecotourism (such as birding). Hunting and Fishing (involves carrying capacity of available acreage). All various uses at different flood regimes are to be evaluated. The reservoir management plan changes due to flood level changes. Guides on public lands adjacent to the Lower Roanoke, canoe users, and camping platform users, and other users are to be interviewed regarding characteristics of flooding.

Task 3--Compilation of all data in order to create an analytical tool to not only qualitative analyze flooding regimes but to mesh data with entire model in order to input flood scenarios and analyze the affects on the four key uses. Efforts will be incorporated with the Recreation Team and Water Quality Team efforts. Phase II is estimated to cost \$60,000.

f. Team 6: Salt Wedge. Greg Williams, USACE, reported that the team met in November and briefed in December. The SOW and costs were reviewed. USGS and team agreed that scope and costs were adequate. No changes to the tasks have occurred. Mr. Williams is the Team Leader in the interim pending John Hazelton's redeployment from Afghanistan.

g. Team 7: Diadromous Fish and Downstream Riverine Aquatic Resources. Chuck Wilson, USACE, and Pete Kornegay, NC Wildlife Resources Commission, summarized the team's progress since the last meeting was held. The team made several edits in regards to combining the two groups. An editorial move of costs was made in committees. The scope was expanded to address tributaries increasing costs by \$8,000. An additional SOW addressing the economic impact of fisheries and to examine reaches of river loading impacts on aquatic resources was completed.

h. Team 8: Water Supply. Tom Fransen, NC Division of Water Resources, and Terry Wagner, VA Department of Environmental Quality, reported no progress since the last Executive Committee/Team Leader's Meeting. The water supply team would like to submit a proposal to the Executive Committee to extend the Study area.

SUBJECT: John H. Kerr 216 Feasibility Study Executive Committee and Work Group Team Leader's Meeting 24 March 2004

i. Team 9: Operating Policies and Administrative Procedures. Mr. Morris and Joe Hassell, VA Department of Environmental Quality have not met and intend on discussing the tasks today.

4. Project Manager/Lead Planner Observations & Concerns.

a. Status of RRBROM Review. Project Manager and Lead Planner observations and concerns were discussed after all of the teams provided the status of their tasks. Mr. Williams provided a status review of RRBROM. He stated that Tony Young, USACE completed an extensive review of RRBROM and had spoken to outside sources and specialists. Communication with Brian McCrodden and Dean Randall of HydroLogic, Inc., was very informative. A list of required model modifications and corrections have been developed. A list of enhancements that USACE would like to see in the next version has also been developed. Mr. Brown and Mr. Williams will develop a Memo of Record for approving the use of the Model for John H. Kerr 216 with the list of improvements attached. Mr. Williams mentioned that corrections are definitely feasible, enhancements are desired, and with time changes and enhancements will be determined as simple or complex. The memo will only state corrections and enhancements; it will not provide implementation measures. Sam Pearsall, TNC expressed concern with hydrologic team costs and curiosity in regards to implementation.

b. Need for a Modeling Oversight Team. The need for a Modeling Oversight Team was presented by Richard Lewis. After reviewing the PMP and RFPs and collecting data correctly, input needs and outputs have been identified. Mr. Fransen, Mr. Young, Mr. Mead, Mr. Pearsall, and Adugna Kebede were recommended for the Modeling Oversight Team. Clarification of outputs of RRBROM are requested. RRBROM data from 1930-2003, traces water levels, flows for the system, and power generation (via running water flow data in model). The model demonstrates water flow into floodplain using time series. Output data sets from RRBROM will be input into recreation, water quality, and ecological community response models. The need for assurance upfront that RRBROM is the correct model to use for input was emphasized because it is being used to drive all other aspects of the study. It is important that all teams understand the model and that all are able to interface w/approach. The Oversight Team will ensure that all models are appropriately synergetic and that the models are not competing but working congruently. An example for using RRBROM is the sedimentation work group will have to know about flow and inundation in order to determine sediment loading, etc. The question was posed whether costs associated with the model shall be lumped into one sum or separated into individual costs for each of the nine task groups.

c. Discussion whether RRBROM is accepted Model for all Taskers. Discussion of whether RRBROM is the accepted model for all tasks continued. The model is usable for most of the assigned tasks but does not complete needs of all SOWs. Further exploration of the outputs desired for each Team is necessary to identify if RRBROM is the most acceptable model. This model is sufficient for Phase I for the Flow Model. For Downstream Flow Regime and Water Quality Tasks there is another model necessary. Use of the Water Quality Task team model is dependent upon full review of RRBROM and the decisions and information generated from the Oversight Team. RRBROM measures the majority of parameters for most of the Team's tasks but not all. The Oversight Team is to ensure that duplication of efforts does not occur and ensures equivalency between the models.

d. Study Progress. Mrs. Hetherman stated that great input has been provided for progression of the study and that a meeting will be held in April with team leaders, the lead planner, and the project manager. Some of the Phase I tasks need to be looked at again as they appear to be Phase II tasks. Concern was expressed regarding teams without any output and those teams were encouraged to catch up.

SUBJECT: John H. Kerr 216 Feasibility Study Executive Committee and Work Group Team Leader's Meeting 24 March 2004

e. Methods of Accomplishment. Methods of accomplishment were addressed by Mr. Lewis, USACE. The implementation of Phase I tasks needs to be included on the PMP spreadsheet. Tasks may be completed by USACE in-house, State in-house, or another agency. If work is completed by an outside source, line items need to be determined and reviewed by an appropriate technical team. Development of costs for either in-house or an outside team to complete work will be necessary.

f. Phase II Scopes and Cost Estimates. Mr. Lewis reported that the PMP spreadsheet will be provided with changes and requests via email responses of who is to complete work and whether it will be completed in Phase I or Phase II. The spreadsheet will separate out costs and priorities. Comments on the spreadsheet are requested within 2 weeks. Costs of outside sources completing work will be negotiated by USACE contracting.

g. Financial Cost Sharing Update. Colonel Alexander requested that an updated schedule be distributed for the next meeting.

h. Monthly Status Reports. Mrs. Hetherman thanked all of the team members for submitting monthly status reports and requested that the reports continue to be submitted by the 15<sup>th</sup> of each month. Importance of submitting current milestones was emphasized.

The next Team Leader's Meeting was tentatively scheduled for 29 June 04.

Tara A. Williams  
Planner

CF: CESAW-TS-PS/Lewis  
CESAW-PM-C/Hetherman